

Purpose: To generally characterize Massachusetts coastal waters within the Ocean Planning Area prior to the Ocean Plan being implemented (2008).

Goal: One paragraph to one page written on each subtopic below by 21 November 2008.

1. Introduction
 - 1.1. Oceans Act of 2008
 - 1.2. Definition of Ocean Planning Area
 - 1.2.1. List of Communities in Planning Area
 - 1.2.2. Population (important?)
 - 1.2.3. Coastline length (4,537 km—includes inlets)
 - 1.2.4. Watersheet area (5,554.29 km²)
2. Water Column Features
 - 2.1. Tidal Range
 - 2.2. Water depth
 - 2.3. Currents/circulation (driven in part by seasonal wind patterns)
 - 2.4. Surface Temperature
 - 2.5. Seasonal changes (stratification, temp, salinity, etc).
 - 2.6. Upwelling areas
 - 2.7. Water Quality (light penetration, salinity, temperature, pH, bacteria, petroleum products, dissolved metals, DO, Chl a, nutrients)
3. Seabed Features
 - 3.1. Geologic composition
 - 3.2. Sediment transport
 - 3.3. Place holder for habitat characterization (e.g., how geology drives biology)
 - 3.4. Sediment Quality (penetration, petroleum products, metals)
4. Habitat characterization
 - 4.1. Primary and Secondary Productivity (phytoplankton and zooplankton)
 - 4.2. Fishery Resources and Habitat
 - 4.3. Benthic Species (include needed time for recovery from disturbance)
 - 4.4. Avifauna
 - 4.5. Marine mammals and reptiles
 - 4.6. Critical Habitat (this may overlap w/ protected areas (1.6.7) to some degree)
5. Archeological and Cultural Sites
 - 5.1. Shipwrecks
 - 5.2. Native American sites
6. Human Uses
 - 6.1. Fishing
 - 6.1.1. Commercial (mobile, fixed)
 - 6.1.2. Recreational
 - 6.1.3. Aquaculture

- 6.2. Recreation other than fishing
 - 6.2.1. Boating (regattas, day sailing)
 - 6.2.2. Marine Mammal & Bird Viewing
 - 6.2.3. Diving
- 6.3. Transportation
 - 6.3.1. Shipping
 - 6.3.2. Cruise Ships
 - 6.3.3. Ferries/Commuter Boats
 - 6.3.4. Navigational Aids and Lanes
- 6.4. Industry (LNG, power plants, others) & Wastewater Discharges (Gloucester, Manchester, SESD, Lynn, MWRA)
- 6.5. Military Exercises
- 6.6. Ocean Disposal (dredged materials, hazardous waste)
- 6.7. Protected Areas, Man-made Habitat (artificial reefs, eelgrass beds), Research
- 6.8. Mining
- 6.9. Telecommunication and energy cables (e.g., Hibernia, to/from Islands)
- 6.10 Renewable Energy

7. Economic Value

- 7.1. Direct Use Value
- 7.2. Indirect Use Value
- 7.3. Nonuse Value (e.g., aesthetic value; how much would one pay for a clean ocean?)

Questions for SAC:

1. Does this outline capture all characteristics and uses of the planning area?

2. What should the order be for Human Uses?

3. Should the units of measure be metric or English? Audience is managers and state agencies. (If metric, place conversions in parentheses).